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# Integrity and Collapse Resistance of Structural Concrete Floor Systems— Report

Reported by ACI Committee 377





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Reported by ACI Committee 377

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This report provides a summary of the present understanding of collapse-resisting mechanisms of reinforced concrete and post-tensioned flat plates, flat slabs, slabs with beams, joist floor systems, and precast floor systems following initial local failures.

Bruce R. Ellingwood

**Keywords:** beam growth; catenary action; collapse resistance; collapseresisting mechanisms; column removal; compressive membrane action; emulative connection; flat plate; flat slab; floor systems; joist floor; postpunching capacity; post-tensioned; precast; punching; structural integrity.

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